In the claims:

Please amend the claims as follows:

Claims 1-26 (withdrawn)

27. (currently amended) A method of identifying a compound that is predicted to inhibit bacterial growth comprising:

(a) defining the structure of rifampicin bound to the core RNA polymerase (Rif-RNAP) or a portion of the Rif-RNAP by the atomic coordinates in Table 2; wherein the portion of the Rif-RNAP comprises sufficient structural information to perform step (b); and

(b) identifying a compound that is predicted to inhibit bacterial growth by performing rational drug design with the structure defined in step (a), wherein ~~said identifying is performed by using the structure defined in step (a)~~ the identifying is performed in conjunction with computer modeling.

28. (original) The method of Claim 27, further comprising:

(a) contacting the compound with a bacterial culture; and

(b) measuring the growth of the bacterial culture under conditions in which the bacterial culture grows in the absence of the compound; wherein the compound is identified as an agent that inhibits bacterial growth when there is a decrease in the growth of the bacterial culture in the presence of the compound relative to in its absence.

29. (previously amended) The method of Claim 28, further comprising:

(a) contacting the compound with a eukaryotic cell; and

(b) measuring the amount of proliferation of the eukaryotic cell under conditions in which the eukaryotic cell proliferates in the absence of the compound; wherein the compound is identified as an agent for inhibiting bacterial growth when there is no change in the proliferation of the eukaryotic cell in the presence of the compound relative to in its absence;

and wherein the compound identified inhibits bacterial growth but not eukaryotic proliferation.

30. (withdrawn)

31. (new) The method of claim 27, wherein the compound is a small organic molecule.

32. (new) The method of claim 28, further comprising synthesizing the compound.

33. (new) The method of claim 27, wherein the portion comprises a region of Rif-RNAP that is within at least approximately 10 Å of the center of the position of the bound rifampicin as defined by the coordinates in Table 2.

34. (new) The method of claim 33, further comprising:

(a) contacting the compound with a bacterial culture; and

(b) measuring the growth of the bacterial culture under conditions in which the bacterial culture grows in the absence of the compound; wherein the compound is identified as an agent that inhibits bacterial growth when there is a decrease in the growth of the bacterial culture in the presence of the compound relative to in its absence.

35. (new) The method of claim 34, further comprising:

(a) contacting the compound with a eukaryotic cell; and

(b) measuring the amount of proliferation of the eukaryotic cell under conditions in which the eukaryotic cell proliferates in the absence of the compound; wherein the compound is identified as an agent for inhibiting bacterial growth when there is no change in the proliferation of the eukaryotic cell in the presence of the compound relative to in its absence; and wherein the compound identified inhibits bacterial growth but not eukaryotic proliferation.

36. (new) The method of claim 27, wherein the portion comprises the region defined by the atomic coordinates in Table 2 for the backbone atoms of at least three amino acid residues selected from the group consisting of: G414, L413, S411, I452, R409, E445, H406, D396, F394, Q393, L391, and Q390.

37. (new) The method of claim 36, wherein the portion comprises the region defined by the atomic coordinates in Table 2 for the backbone atoms of at least five amino acid residues selected from the group.

38. (new) The method of claim 37, wherein the group consists of: G414, L413, S411, I452, R409, E445, H406, D396, F394, Q393, L391, Q390, T566, T443, P444, T543, A412, S392, S387, K395, T398, S402, and L401.

39. (new) The method of claim 38, wherein the portion comprises the region defined by the atomic coordinates for the backbone atoms of at least ten amino acid residues selected from the group.

40. (new) The method of claim 36, further comprising:

(a) contacting the compound with a bacterial culture; and

(b) measuring the growth of the bacterial culture under conditions in which the bacterial culture grows in the absence of the compound; wherein the compound is identified as an agent that inhibits bacterial growth when there is a decrease in the growth of the bacterial culture in the presence of the compound relative to in its absence.

41. (new) The method of claim 37, further comprising:

(a) contacting the compound with a eukaryotic cell; and

(b) measuring the amount of proliferation of the eukaryotic cell under conditions in which the eukaryotic cell proliferates in the absence of the compound; wherein the compound is identified as an agent for inhibiting bacterial growth when there is no change in the proliferation of the eukaryotic cell in the presence of the compound relative to in its absence; and wherein the compound identified inhibits bacterial growth but not eukaryotic proliferation.

42. (new) The method of claim 27, wherein the portion comprises the region defined by the atomic coordinates in Table 2 for the backbone and side chain atoms of at least three amino acid residues selected from the group consisting of: G414, L413, S411, I452, R409, E445, H406, D396, F394, Q393, L391, and Q390.

43. (new) The method of claim 42, wherein the portion comprises the region defined by the atomic coordinates in Table 2 for the side chain and backbone atoms of at least five amino acid residues selected from the group.

44. (new) The method of claim 43, wherein the group consists of: G414, L413, S411, I452, R409, E445, H406, D396, F394, Q393, L391, Q390, T566, T443, P444, T543, A412, S392, S387, K395, T398, S402, and L401.

45. (new) The method of claim 44, wherein the portion comprises the region defined by the atomic coordinates for the side chain and backbone atoms of at least ten amino acid residues selected from the group.

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46. (new) The method of claim 42, further comprising:

(a) contacting the compound with a bacterial culture; and

(b) measuring the growth of the bacterial culture under conditions in which the bacterial culture grows in the absence of the compound; wherein the compound is identified as an agent that inhibits bacterial growth when there is a decrease in the growth of the bacterial culture in the presence of the compound relative to in its absence.

47. (new) The method of claim 44, further comprising:

(a) contacting the compound with a eukaryotic cell; and

(b) measuring the amount of proliferation of the eukaryotic cell under conditions in which the eukaryotic cell proliferates in the absence of the compound; wherein the compound is identified as an agent for inhibiting bacterial growth when there is no change in the proliferation of the eukaryotic cell in the presence of the compound relative to in its absence; and wherein the compound identified inhibits bacterial growth but not eukaryotic proliferation.